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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/627,139  
Filing Date: July 27, 2000  
Appellant(s): SCHAFFER ET AL.

\_\_\_\_\_  
Robert M. McDermott  
(Reg. No. 41,508)  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 08/09/2007 appealing from the Office action mailed 12/29/2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

US 6,438,579	HOSKEN	08-2002
6,112,186	BERGH ET AL.	08-2000

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 9-14, 17-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Hosken (US 6,438,579).

Regarding claim 1, the claimed automated recommendation system is broadly met by Hosken's disclosure as follow:

"a processor connected to receive resource data defining available resources" is broadly met by system processes 42 to receive resource data from source information (figure 1b) and "at least two sets of profile data, each defining a user preferences with respect to the resources" is broadly met by implicit set and explicit set of profile data, each defining a user preference (either user reference from user or user preference from cluster of user profile which includes the user) with respect to the resources- figures 2-3; col. 4, lines 44-55);

"each of the sets of data being derived from a different class of interaction of the user with a first portion of the resource data and usable to predict a given resource's desirability based on each of the sets" is broadly met by implicit data is gathered by monitoring user action and explicit data is gathered by user directly input information, and the data is used to predict the resource/item desired by user (figures 2-3, col. 5, lines 42-67; col. 10, line 2-col. 11, line 25);

"the processor being adapted to: generating at least two sets of predictions based on one or a combination of the sets of profile data, and combine at least two sets of predictions be weight-averaging corresponding ones from each of the at least two sets of predictions" is broadly met by the system processes (42) being adapted to generate content result table and collaborative result table or user favorite items table, the system combines the two table together, removing duplicates (averaging the rating weights – col. 16, lines 23-38).

Regarding claim 2, Hosken further discloses averaging rating weights and produce a table of recommend items based on implicit profile data and explicit profile data (col. 6, lines 33-50; col. 8, line 38-col. 13, line 31; col. 16, lines 1-44). Thus, the processor is inherently adapted to generate weight sum of corresponding records from each of the sets of profile data to generate a single combine set of profile data, and generate at least one of the sets of predictions from the single combined set (generating a final result table from the combination of profile data.

Regarding claims 3-4, Hosken further discloses the system processes (42) is connected to control of items and responsive to the items recommended in the table (figures 1b-2; col. 6, lines 6-67) broadly reads on the claimed feature of "the processor is connected to control delivery of resource corresponding to the resource data and responsively to the predictions.

Regarding claim 5, Hosken further discloses the at least two profile data sets include a feedback data set derived from ratings provided by the user with respect to a particular resource in the resource data (col. 10, line 1-49).

Regarding claim 6, Hosken further teaches the at least two profile data sets include an implicit data set derived from machined observation of a user's resource use history, whereby the implicit data reflects the user's selections of resource to use (col. 10, line 50-19).

Regarding claims 9-14, the limitations of method as claimed respectively correspond to the limitations of system as claimed in claims 1-6 and are analyzed as discussed in the rejection of claims 1- 6.

Regarding claim 17, Hosken further discloses the sets of profile data includes a set of explicitly profile data indicating express indications by a user of preferred classes of programming rather than indication by the user of particular resources that are preferred (col. 10, line 1-49);

a feedback data derived from ratings provided by the user with respect to a particular resource in the resource data (col. 10, lines 1-49);

an implicit data set derived from machine observation of a user's resource use history, whereby the implicit data reflects the user's selection (col. 10, line 50-col. 11, line 19).

Regarding claim 18, see the rejection of claims 1 and 17.

Regarding claim 19-20, Hosken further the weighted relations data provided by the expert weighting filter is accepted as provided with any subsequent modifications, by whatever party maintain and updates the expert weighting filter 54 data, as representing any changing in the weighted relation over time (col. 11, lines 15-63). As a result, the processor is adapted to adjust weights (or override) of the weight averaging

responsively to a difference between the corresponding ones (i.e., in response to user change of interest in particular item).

Regarding claims 21-23, the limitations of the method as claimed correspond to the limitations of the system as claimed in claims 18-20, and are analyzed as discussed with respect to the rejection of claims 18-20.

Regarding claim 24, the claimed limitations of the method is broadly met by Hosken's disclosure as follow:

"generating a first profile data by receiving through a user interface user preference in the form of expressed generalized preferences corresponding classes of resource" is broadly met by generating implicit profile data or explicit data (figures 2-3, col. 10, line 1 -col. 11, line 19);

"generating second profile data by receiving user preferences in the form of rating data corresponding to specific resource" is met by generating explicit data (col. 10, lines 1-49); and

"applying the first and second profile data to respective prediction engine to produce first and second prediction and second prediction results and combining the first and second results" is broadly met by applying the implicit profile data and explicit profile data to system processor to produce content result table and collaborative result table and combining the content result table and collaborative result tables (figures 2-3, col. 16, lines 1-44).



Regarding claim 25, Hosken further discloses combining the first and second profile data including weight averaging corresponding ones of the profile data (col. 16, lines 24-28).

Regarding claim 26, Hosken further discloses combining results (result tables) includes selectively weight averaging corresponding ones of the predictions (col. 16, lines 24-28).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-8,15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosken (US 6,438,579) as applied to claims 1, 9 above, and further in view of Bergh (US 6,112,186).

Regarding claim 7, Hosken teaches a system as discussed in the rejection of claim 1. However, Hosken does not specifically disclose input vectors each include feature – value pairs.

Bergh teaches input vectors each include feature-value pairs (see col. 4, lines 15-32 and col. 19, line 25- col. 24, line 36). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hosken to use the teaching as taught as Bergh in order to improve efficiency in data recommendation system.

Regarding claim 8, Hosken teaches a system as discussed in the rejection of claim 1. However, Hosken does not specifically disclose input vectors each include feature – value pairs and a rating value.

Bergh teaches input vectors each include feature-value pairs and a rating value (see col. 4, lines 15-32 and col. 19, line 25- col. 24, line 65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hendricks to use the teaching as taught as Bergh in order to recommend product to user more accurate according to specific interest level of user.

Regarding claims 15-16, the limitations of method as claimed respectively correspond to the limitations of system as claimed in claims 7- 8, and are analyzed as discussed in the rejection of claims 7 and 8.

**(10) Response to Argument**

**A. Claims 1-6, 9-14, and 17-26 stand rejected under 35 U.S.C 102 (e) over Hosken.**

Appellant argues Hosken fails to teach generating at least two sets of predictions based on two sets of profile data defining a user preference, and Hosken fails to teach weight-average these at least two sets of predictions because there is not one instance in Hosken where references multiple profiles associated with a user (pages 7-9, page 10, paragraphs 1 and 3, page 11, paragraphs 1, 3). This argument is respectfully traversed.

It is noted that neither limitation "generating at least two sets of predictions based on two sets of profile data defining a user preference" nor "multiple profiles associated with a user" is recited in the claim 1. Instead, claim 1 recites "two sets of profile data, each defining a user's preferences..." and "the processor being adapted to: generate at least two sets of predictions based on one or a combination of the sets of profile data, and combine the predictions by weight-average corresponding to ones from each of the at least two sets of predictions."

Claim 1 recites "two sets of profile data each defining a user's preference. In this case, Hosken discloses one set of profile is defined from a user preference (e.g. via implicitly or explicitly behavior or rating). The other set of profile data is defined from plural user

preferences including a single user preference or the same user preference (via either implicitly or explicitly behaviors or rating- see include, but are not limited to, figures 2-3, col. 4, lines 44-55, col. 5, lines 42-47, col. 10, line 2-col. 11, line 25). Therefore, the other set of profile is defined also by a user preference. Hosken discloses profile data is received from a user and used to generate a prediction (e.g., content result table is generated based on user implicit behaviors— col. 10, line 50-col. 11, line 19 or favorite items table is based on user explicit behaviors – col.10, lines 1-49; col. 14, lines 40-60). Hosken further discloses another prediction (collaborative result table) is generated based on references of a cluster of user including the references of the user that used to generate the content result table or favorite items table (the vector is an array based representation of the favorites input table that contains the item the user rating for that item... the system would compare the two user profiles, identifying any items contained in the user profile vector that were not present in the current user profile... – See col. 15, line 10-col. 16, line 15). Hosken then discloses combining content result table and collaborative result table, and then with users favorite items table (col. 16, lines 24-39). Thus, Hosken's disclosure of implicit data, explicit data, rating data, etc. used as user's preferences is read on two sets profile data, each defining a user's preferences..." and generating content result table and/or user favorite items table based on a user's preferences (including explicit data, implicit data and/or rating data) and collaborative result table based on references of a cluster of users, which includes reference of the user is read on "...generate at least two sets of predictions based on one or a combination of the sets of profile data"; combining content result table and collaborative

result table and/or user favorite items table (averaging the ratings weights) is read on combine the predictions by weight-averaging corresponding ones from each of the at least two sets of predictions.

It is also noted that the term "adapted to" suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation (M.P.E.P 2106 II, C). In this case, the processor does not require performing "generate at least...."

Therefore, Hosken's disclosure is read on the limitations as claimed.

**B. Claims 7-8 and 15-16 stand rejected under 35 U.S.C 103a over Hosken and Bergh.**

Appellant argues claims 7-8 are dependent upon claim 1 and claims 15-16 are dependent upon claim 9, and Hosken fails to teach each of the limitations of claim 1 or claim 9 (pages 11-12). This argument is respectfully traversed.

Hosken's disclosure is read on the limitations of claim 1 and claim 9 as discussed above. Therefore, Hosken in view of Bergh discloses the limitations of claims 7-8 and 15-16 as discussed above.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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